

# Electrical Overstress – 2

Multiple Choice Quiz

TI Precision Labs – Op Amps



## Quiz: Electrical Overstress – 2

1. A bi-directional TVS diode is \_\_\_\_\_.

- a. Recommended for dual supply devices.
- b. Used to limit the input swing to a voltage range such as  $\pm 10\text{V}$
- c. Two TVS diodes connected at their anode

2. What are the characteristics of a ferrite bead?

- a. It has low resistance at low frequency and high resistance at RF frequencies.
- b. It has high impedance at all frequencies except a narrow band near 60Hz
- c. It is normally placed in parallel with a TVS diode to improve EOS protection.
- d. It increases impedance at high current; it acts like a resettable fuse.

3. (T/F) An RC low-pass filter can be effective for minimizing EOS from fast transients.

- a. True
- b. False

## Quiz: Electrical Overstress – 2

4. When a pulse is applied to a low-pass RC filter, in one RC time constant the output will charge to approximately \_\_\_\_\_.

- a. 40%
- b. 63%
- c. 95%
- d. 99.5%

5. (T/F) Without proper input current limiting, some amplifiers can be damaged when the amplifier is in slew rate limit.

- a. True
- b. False

## Quiz: Electrical Overstress – 2

**6. Which of the following is not useful for op amp external EOS protection?**

- a. Zener Diodes
- b. Schottky Diodes
- c. Semiconductor Transient Voltage Suppressors
- d. Resistors
- e. Bipolar Transistor
- f. Capacitors
- g. Ferrites
- h. Inductors

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Multiple Choice Quiz: Solutions

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